

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES CONSTRUCTING AN INTERSECTION CONTROL BEACON AT THE INTERSECTION OF MD 213 (AUGUSTINE HERMAN HIGHWAY) AND ELK FOREST ROAD IN CECIL COUNTY. ONE TWIN 50/60 FOOT MAST ARM SIGNAL POLE, ONE 50 FT. MAST ARM SIGNAL POLE, AND ONE 38 FT. MAST ARM SIGNAL POLE ARE PROPOSED. TWO 20 FOOT LIGHTING ARMS WITH LUMINAIRES ARE PROPOSED. MD 213 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN FLASHING MODE WITH FLASHING YELLOW ON MD 213 (AUGUSTINE HERMAN HIGHWAY) AND FLASHING RED ON ELK FOREST ROAD.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER AND ASSOCIATED HARNESSES IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO NOTIFY MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #2 ARE AS FOLLOWS:

Mr. Robert L. Kiel
Assistant District Engineer - Traffic
Phone: 410-810-3240

Mr. Barry Clothier
Assistant District Engineer - Utility
Phone: 410-810-3275

Mr. Terry O. Wright
Assistant District Engineer - Maintenance
Phone: 410-810-3250

Mr. Richard L. Daff
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Edward Rodenhizer
Chief, Signal Operations Division
Phone: 410-787-7652

The Power Company Representative is:
Delmarva Power
2 Center Drive
North East, MD 21201
Phone: 410-287-7176

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
9044	1 EA	(UPDATED) CONTROLLER CABINET, SIZE 6
9571	115 SF	(UPDATED) SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN: 2 EACH - D-3(1) (VAR. X 16 IN.) DUAL FACED "AUGUSTINE HERMAN HWY" 2 EACH - D-3(1) (VAR. X 16 IN.) DUAL FACED "ELK FOREST RD" 1 EACH - SHIELD ASSEMBLY (48 IN. X 75 IN.) "NORTH, MD 213, LEFT ARROW" 1 EACH - SHIELD ASSEMBLY (48 IN. X 75 IN.) "SOUTH, MD 213, LEFT ARROW" 1 EACH - SHIELD ASSEMBLY (30 IN. X 51 IN.) "NORTH, MD 213, RIGHT ARROW" 1 EACH - SOUTH ASSEMBLY (30 IN. X 51 IN.) "SOUTH, MD 213, RIGHT ARROW"

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2002	4 CY	TEST PIT EXCAVATION
5002	30 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT MARKINGS - ANY WIDTH
5005	60 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
8001	8 EA	12 INCH LED SIGNAL HEAD SECTION (R,Y,G)
8007	2 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8016	1 EA	MAST ARM POLE & 38 FT MAST ARM ANY "T" DIMENSION
8019	1 EA	MAST ARM POLE & 50 FT MAST ARM ANY "T" DIMENSION
8023	1 EA	TWIN MAST ARM POLE & 50 FT/60 FT MAST ARMS ANY "T" DIMENSION
8034	185 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8035	175 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8038	115 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8040	350 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8042	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8044	100 LF	ELECTRICAL CABLE 1 - CONDUCTOR NO. 4 AWG - THHN/THWN
8046	3 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8051	1 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8055	90 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8056	530 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8057	200 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC
8064	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

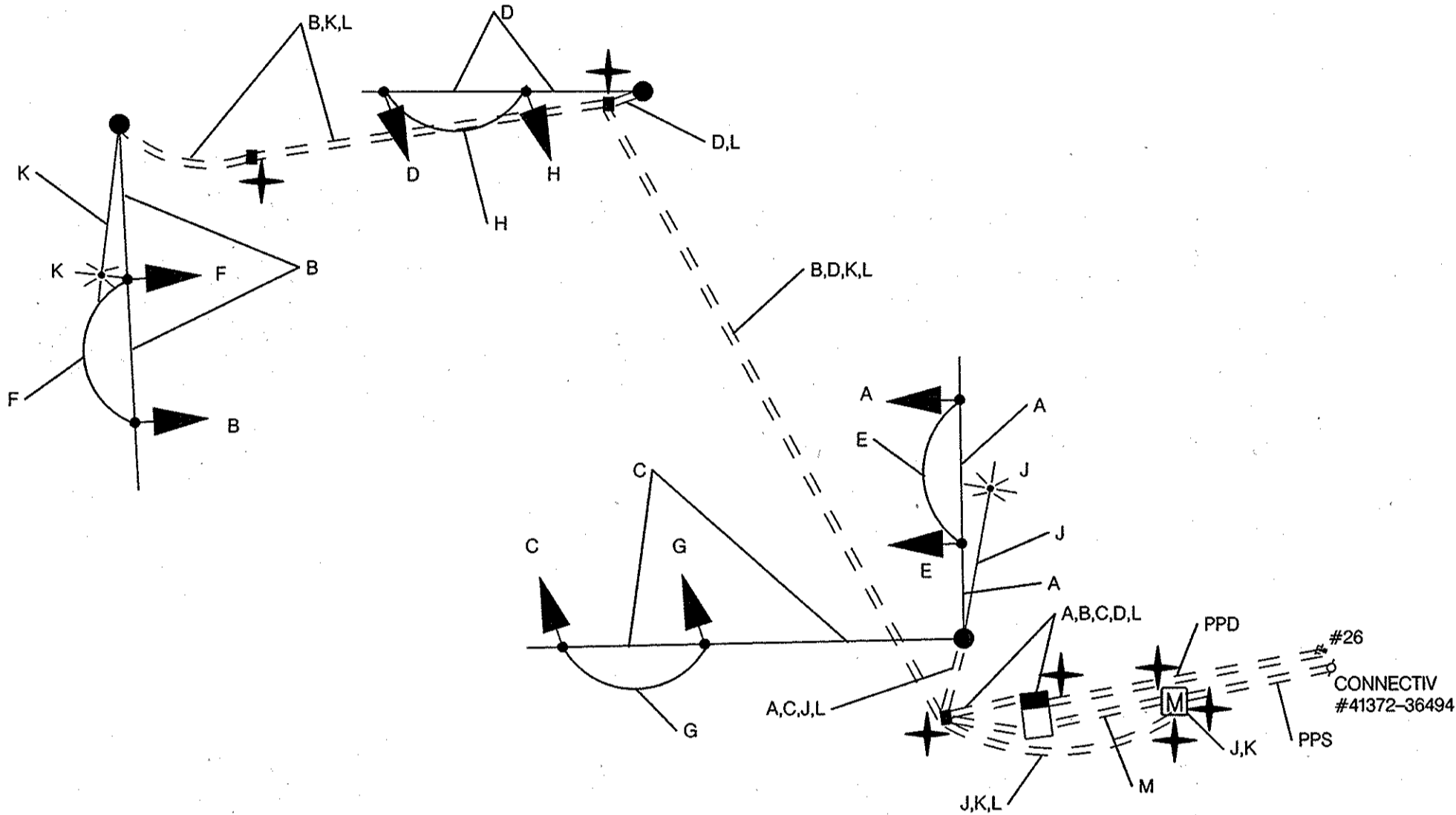
ITEM NO QUANTITY DESCRIPTION

NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

ADDED UTILITIES AND SHIFTED SIGNAL POLES ACCORDINGLY

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 213 (AUGUSTINE HERMAN HIGHWAY) AT ELK FOREST ROAD BRANTWOOD, MARYLAND	
GENERAL INFORMATION	
SCALE NONE	DATE 11/2006
CONTRACT NO. AT9095185	
DESIGNED BY MCG	COUNTY CECIL
DRAWN BY MCG	LOGMILE 07021314.95
CHECKED BY BAB	T.I.M.S. NO. H571
F.A.P. NO.	TOD NO.
DRAWING NO. TS - 4467	SHEET NO. 2 OF 2

WIRING DIAGRAM

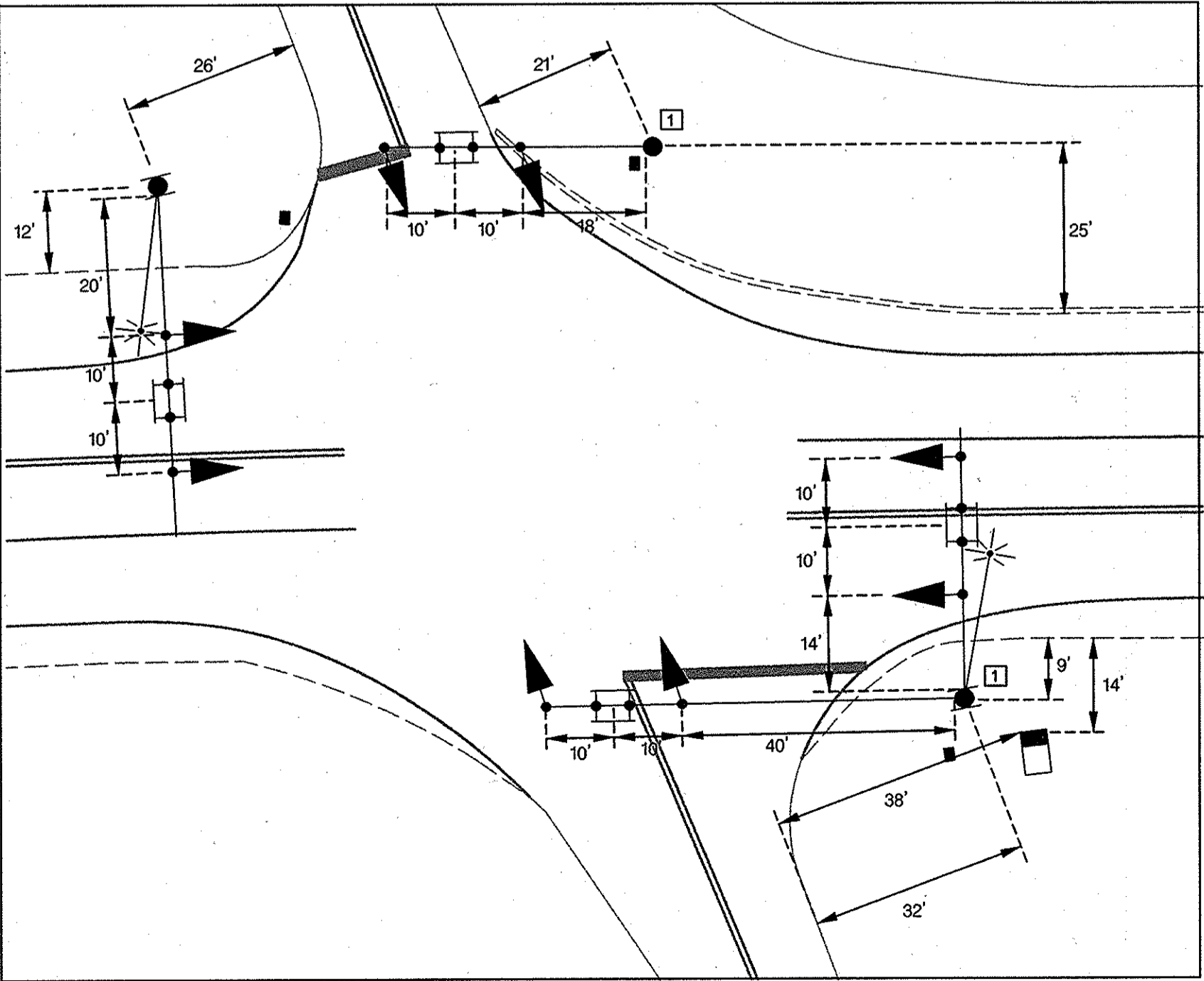


PHASE CHART

	1	2	3	4	5	6	7	8	
	(Y)	(Y)	(Y)	(Y)	(R)	(R)	(R)	(R)	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	

SIGNAL POLE DETAIL LAYOUT

SCALE: 1" = 20'



- A, B, C, D - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- E, F, G, H - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- J, K - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC
- L - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

- GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH

- PPS - PROPOSED POWER SERVICE TO BE INSTALLED BY OTHERS

- M - PROPOSED POWER SOURCE
ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG - THHN/THWN (3 RUNS WITH 3-30' COILS OF SLACK)

- PPD - PROPOSED PHONE DROP TO BE INSTALLED BY OTHERS

- M - PROPOSED METERED SERVICE PEDESTAL



engineers/architects/planners/construction managers
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112